IN THE CLAIMS:

1. (Previously presented) A system comprising:

at least one first conductive element and at least one second conductive element;

a transmitter conductively coupled to at least one said first conductive element without also being conductively coupled to any said second conductive element, the transmitter being operable to drive a first electromagnetic signal along the at least one first conductive element;

a receiver for receiving signals from the at least one second conductive element; and

a coupler, mounted for so sliding through a range of positions with respect to the first and second conductive elements as to respond to the first electromagnetic signal by launching on the second conductive element a second electromagnetic signal received by the receiver with a timing with respect to the first electromagnetic signal that depends on the coupler's position; and

a processing element responsive to the second electromagnetic signal to generate, at least in part from the second magnetic signal's time delay with respect to the first electromagnetic signal, an output indicative of the value of a quantity on which the coupler's location depends.

2. (Previously Presented) The system of claim 1 further comprising a third conductive element surrounding at least part of the at least one first and second conductive elements and being connected to a ground plane.

3. (Previously presented) The system of claim 1 wherein the at least one first and second conductive elements are positioned substantially parallel to each other.

4. (Canceled)

5. (Previously Presented) The system of claim 1 wherein at least one of the first and second electromagnetic signals exhibits an ultra-wideband frequency.

6-14. (Canceled)

15. (Previously presented) The system of claim 1 wherein at least one of the first and second conductive elements is flexible.

16. (Previously presented) The system of claim 1 wherein the first and second conductive elements exhibit quadrilateral cross-sections.

17. (Previously presented) The system of claim 1 wherein the first and second conductive elements exhibit substantially identical cross-sections.

18. (Canceled)

19. (Previously Presented) The system of claim 1 wherein the coupler operates as an electromagnetic shunt path between the at least one first and second conductive elements.

20. (Canceled)

21. (Previously presented) The system of claim 1 further comprising:
a float for positioning the coupler.

22. (Previously Presented) The system of claim 21 wherein the float includes a buoyant component and a weighted component.

23-28. (Canceled)

29. (Previously presented) The method of claim 47 further comprising:
providing a float for positioning the coupler.

30. (Previously presented) A method comprising:

providing a coupler, mounted for so sliding through a range of positions with respect to first and second conductive elements as to respond to a first electromagnetic signal propagating along the first conductive element by launching on the second conductive element a second electromagnetic signal whose timing with respect to the first electromagnetic signal depends on the coupler's position;

driving a first electromagnetic signal by conductive coupling on the first conductive element without also driving the second conductive element by conductive coupling;

receiving from the second conductive element the second electromagnetic signal thereby launched on the second conductive element;

determining the value of a quantity on which the coupler's position depends at least in part by evaluating a time delay of the second electromagnetic signal relative to the first electromagnetic signal; and

generating an output signal dependent upon the quantity's value thus determined.

31-44. (Canceled)

45. (Previously presented) The system of claim 1 further comprising a supporting material for slidably receiving the coupler in a channel defined therein, the supporting material maintaining a consistent displacement between the coupler and the first and second conductive elements.

46. (Canceled)

47. (Previously presented) A method as defined in claim 30 wherein the coupler exhibits a length corresponding to at least one-quarter of a propagation-velocity pulse length of the first electromagnetic signal.

48. (Previously presented) The method of claim 30 wherein the distance corresponds to a dimension associated with an object.

49. (Previously presented) The method of claim 30 wherein the distance corresponds to a displacement between a plurality of objects.

50. (Previously presented) The method of claim 30 wherein the distance corresponds to an angular orientation.

51. (Previously presented) The method of claim 30 wherein the distance corresponds to a degree of pressure.

52. (Previously presented) The method according to claim 30, wherein the coupler so couples the first and second conductive elements as to launch the second electromagnetic signal along the second conductive element when the first electromagnetic signal reaches the position of the coupler, and wherein the coupler is slidable along the first and second conductive elements.

53. (Previously presented) The method according to claim 30, wherein the first electromagnetic signal propagates from a first end of the first conductive element toward a second end of the first conductive element, and the propagation of the first electromagnetic signal through the boundary will induce the second electromagnetic signal to propagate along the second conductive element toward a first end of the second conductive element.

54. (Previously presented) The system of claim 1 wherein the quantity whose value the output represents is the level of a fluid.

55-58. (Canceled)

59. (Previously presented) The method of claim 30 wherein least one said first conductive element is positioned substantially parallel to at least one said second conductive element.

60. (Previously presented) The method of claim 30 wherein the coupler's location is determined by the level of a fluid.

61. (Previously presented) The method of claim 30 wherein at least of the conductive elements is flexible.

62. (Previously presented) The method of claim 30 wherein the coupler operates as an electromagnetic shunt path between at least one said first conductive element and at least one said second conductive element.

63. (Previously presented) The method of claim 30 wherein the quantity whose value the output represents is the level of a fluid.